(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
15 January 2004 (15.01.2004)

PCT

(10) International Publication Number
WO 2004/005977 A1

(51) International Patent Classification[7]: G02B 3/00, 27/00

(21) International Application Number:
PCT/IB2003/002988

(22) International Filing Date: 1 July 2003 (01.07.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
02077726.4 8 July 2002 (08.07.2002) EP

(71) Applicant *(for all designated States except US)*: KONINKLIJKE PHILIPS ELECTRONICS N.V. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: SHULEPOVA, Yelena [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). LURQUIN, Johan, F. [BE/BE]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

(74) Agent: SCHRIJNEMAEKERS, Hubert, J., M.; Internationaal Octrooibureau B.V., Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

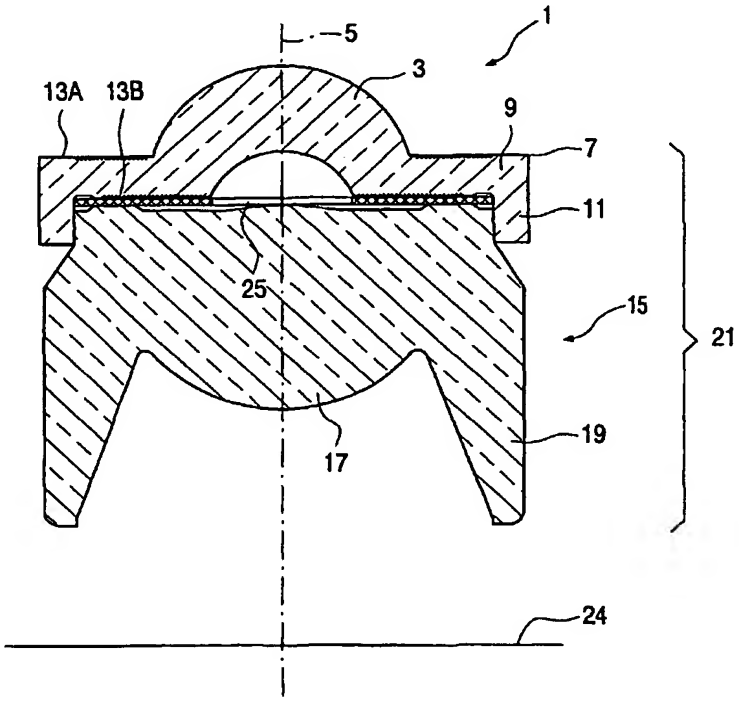
(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH,*

[Continued on next page]

(54) Title: OPTICAL LENS COMPONENT AND OPTICAL LENS ARRANGEMENT COMPRISING THE LENS COMPONENT



(57) Abstract: An optical lens component (1) comprises a central lens element (3) having an optical axis (5) and located centrally of a circumjacent mounting portion (7) having spaced parallel surfaces (13A, 13B) that extend perpendicularly to said optical axis. At least one of said spaced parallel surfaces is provided with a non-random light-scattering structure (23A, 23B) for coupling out light entering said mounting portion. The non-random light-scattering structure may comprise indentations having parallel light-scattering surfaces having predetermined inclinations relative to said spaced parallel surfaces, such as an array of concentric circular indentations centered on said optical axis of the lens element. The optical lens component is preferably a molded integral lens component. Then the light-scattering structure may be provided by molding with the molded optical lens component, preferably into the molded optical lens component. Furthermore an optical lens arrangement is provided comprising an optical lens component according to the invention and light absorbing means provided adjacent at least one non-random light-scattering structure.

WO 2004/005977 A1